



ICAO ENGINE EXHAUST EMISSIONS DATA SHEET

SUBSONIC ENGINES

ENGINE IDENTIFICATION: HTF7000 (AS907-1-1A) BYPASS RATIO: 4.2
 UNIQUE ID NUMBER: 11HN003 PRESSURE RATIO (π_{co}): 22.0
 COMBUSTOR: SABER-1
 ENGINE TYPE: MTF RATED THRUST (F_{oo}) (kN): 30.6

REGULATORY DATA

CHARACTERISTIC VALUE:	HC	CO	NO _x	SMOKE NUMBER
D_p/F_{oo} (g/kN) or SN	3.8	94.6	48.1	15.0
AS % OF ORIGINAL LIMIT	19.5	80.2	64.0	45.7
AS % OF CAEP/2 LIMIT (NO _x)			71.6	
AS % OF CAEP/4 LIMIT (NO _x)			72.5	
AS % OF CAEP/6 LIMIT (NO _x)			73.0	
AS % OF CAEP/8 LIMIT (NO _x)			77.3	

DATA STATUS

- PRE-REGULATION
 x CERTIFICATION
 - REVISED (SEE REMARKS)

TEST ENGINE STATUS

- NEWLY MANUFACTURED ENGINES
 x DEDICATED ENGINES TO PRODUCTION STANDARD
 - OTHER (SEE REMARKS)

EMISSIONS STATUS

x DATA CORRECTED TO REFERENCE
 (ANNEX 16 VOLUME II)

CURRENT ENGINE STATUS

(IN PRODUCTION, IN SERVICE UNLESS OTHERWISE NOTED)
 x OUT OF PRODUCTION (DATE: -)
 - OUT OF SERVICE (DATE: -)

MEASURED DATA

MODE	POWER SETTING (% F_{oo})	TIME (minutes)	FUEL FLOW (kg/s)	EMISSIONS INDICES (g/kg)			SMOKE NUMBER
				HC	CO	NO _x	
TAKE-OFF	100	0.7	0.347	0.05	0.56	17.90	13.6
CLIMB OUT	85	2.2	0.288	0.06	0.63	16.17	10.6
APPROACH	30	4.0	0.104	0.12	6.28	8.81	0.7
IDLE	7	26.0	0.048	1.26	33.24	3.91	1.7
LTO TOTAL FUEL (kg) or EMISSIONS (g)			152	100	2678	1388	-
NUMBER OF ENGINES				3	3	3	3
NUMBER OF TESTS				10	10	10	10
AVERAGE D_p/F_{oo} (g/kN) or AVERAGE SN (MAX)				3.3	87.5	45.4	13.6
SIGMA (D_p/F_{oo} in g/kN, or SN)				0.6	3.7	2.3	1.5
RANGE (D_p/F_{oo} in g/kN, or SN)				2.36-4.34	81.73-92.46	39.54-47.24	9.2-13.6

ACCESSORY LOADS

POWER EXTRACTION 0 (kW) AT - POWER SETTINGS
 STAGE BLEED 0 (% CORE FLOW) AT - POWER SETTINGS

ATMOSPHERIC CONDITIONS

BAROMETER (kPa)	96.4-97.6
TEMPERATURE (K)	296-313
ABS HUMIDITY (kg/kg)	0.0013-0.0125

FUEL

SPEC	Jet A
H/C	1.87-1.89
AROM (%)	16.9-20.5

MANUFACTURER: Honeywell
 TEST ORGANIZATION: Honeywell
 TEST LOCATION: Phoenix, AZ
 TEST DATES: 07/04/2010-29/07/2010

NO_x REGULATION PARAGRAPH

	2.3.2 c) (CAEP/4)
x	2.3.2 d) (CAEP/6)
	2.3.2 e) (CAEP/8)

REMARKS

- Reference: Summary Report Data in Honeywell Report 21-14477A
- Exhaust Smoke and Gaseous Emissions tests of the AS907-1-1A and AS907-2-1G Turbofan Engines
- Reported using humidity h=0.00634 in accordance with ICAO Annex 16, Vol. II, 3rd Ed., section 7.1.3.
- Certification in accordance with Part III, Chapter 2, of Amendment 7 of ICAO Annex 16 Vol. II.
- NO_x levels in accordance with Part III, Chapter 2, 2.3.2 d) (CAEP/6)

Compliance with Fuel Venting requirements:

x ('x' if complies, 'PR' if pre-regulation,
 '-' if information is not available)